

Opportunities for Improvement

Although ETPP has made progress in some areas, most notably successful demolition of the power plant and the cooling towers, the overall conclusion of this review is that the safety management and decontamination and decommissioning programs are not effectively mitigating or reducing site hazards and risks at facilities awaiting demolition. In fact, hazards and future cleanup costs may be increasing as a result of recent ETPP line management decisions, such as deferring decontamination and decommissioning and reducing surveillance and maintenance at higher-risk facilities.

Opportunities for Improvement

The safety management review conducted by the Office of Oversight identified three major areas where improvement is needed. Under each area, the applicable key issues identified during the course of this review are reiterated. For each issue, specific opportunities for improvement are identified. These opportunities should not be viewed as requirements or prescriptive solutions. Rather, these opportunities are derived from experience and lessons learned and are provided for line management's consideration and use as appropriate and as permitted by line management priorities and available resources.

- 1. The ETPP decontamination and decommissioning and surveillance and maintenance programs need increased EM and OR management attention, prioritization, and resources to assure safe and timely disposition of high risk buildings.**

Issue: Higher-risk facilities are not being maintained in a manner that assures the safety of workers and the ability to decontaminate and decommission safely and at a reasonable cost at a later date.

Opportunities for Improvement

- Apply the guidance contained in the EM policy on facility disposition, the DOE order on assets management, the draft DOE order on the disposition of surplus facilities, and the EM implementation guide to assure that high-risk facilities and facilities containing hazards are placed into the recognized life cycle phases of shutdown, deactivation, or decontamination and decommissioning.
- Define specific criteria to be met before placing facilities into an extended decontamination and decommissioning status (e.g., physical condition, surveillance and maintenance requirements, and occupancy limitations).
- Use the DOE-established process to deactivate high-risk facilities or facilities that contain hazards and that cannot be decommissioned for several years; this process should include removal of hazards, measures for safe and stable facility conditions, adequate surveillance and maintenance, and defined end points for acceptance.
- Ensure adequate surveillance and maintenance, including prioritization of the maintenance of roofs on shutdown high-risk or hazardous facilities, to assure the safety of workers in or near the facilities and to allow safe and cost-effective final disposition.

- Strictly control the use of shutdown facilities for occupancy or for the storage of chemicals, materials, or waste to limit surveillance and maintenance costs and to facilitate deactivation and decommissioning.
- Assure that the facility safety authorization basis remains current and reflects changing facility life cycle, physical condition, and hazards through revisions or use of appropriate analyses.
- Maintain the heating, ventilation, and air conditioning systems in an operable condition where deactivation or decommissioning will require work inside the building.
- Strictly limit the “abandon-in-place” concept (if it must be used) to low-hazard buildings that can be demolished from the exterior, such as office buildings, warehouses, or smoke stacks.
- Place a reasonable limit (e.g., five years) on the time a facility can remain in extended and permanent shutdown without being formally deactivated or decommissioned.

Issue: EM and OR are not ensuring that the decontamination and decommissioning program at ETTP is effectively dispositioning high-risk facilities and reducing site hazards on a priority basis.

Opportunities for Improvement

- Clarify roles, responsibilities, and accountabilities for the decontamination and decommissioning program and progress at EM, OR, and the DOE site office.
- Improve accountability for the upkeep of shutdown facilities and decontamination and decommissioning of ETTP through single-point accountability and linking of schedules, milestones, and progress to decontamination and decommissioning managers’ performance appraisals.

- Prioritize and conduct decontamination and decommissioning of at least one higher-risk facility on a continuing basis at ETTP.
- Align sequencing of decontamination and decommissioning projects with the risk prioritization system to ensure that the highest risks are eliminated first.

Issue: The addition of reindustrialization to the ETTP mission has reduced management focus and the application of resources to surveillance and maintenance and the decontamination and decommissioning of higher-risk and degrading facilities.

Opportunities for Improvement

- Separate the decontamination and decommissioning program from reindustrialization to assure adequate management focus and the effective allocation of funding and resources designated for the surveillance and maintenance of shutdown facilities, decontamination and decommissioning, and environmental restoration of shutdown facilities.
- Move the BNFL decontamination and decommissioning of the gaseous diffusion plants to the decontamination and decommissioning program until decontamination and decommissioning are complete and the plants are in a condition to transfer back to reindustrialization for leasing.
- Maintain the decontamination and decommissioning of high-risk facilities, such as K-1131 and K-725, under the decontamination and decommissioning program.
- Establish necessary management controls and criteria to assure that resources and funding designated for shutdown facilities (including surveillance and maintenance), deactivation, and decontamination and decommissioning of gaseous diffusion facilities are not applied to the preparation of facilities for lease, unless the lease work being performed is for DOE or involves decontamination and decommissioning of the facility.

2. **The reindustrialization program needs to be implemented in a more controlled and systematic manner to assure definition of DOE roles, responsibilities, authorities, and liabilities, identification of ES&H requirements, and effective safety oversight.**

Issue: The reindustrialization program at ETPP, including the leasing of buildings, space, and equipment, has been implemented without ensuring that health and safety requirements, accountability for performance, DOE roles and responsibilities, and liabilities are clearly defined.

Opportunities for Improvement

- Continue to work toward defining DOE responsibilities for oversight of lessee worker industrial safety and health performance and mechanisms for accountability.
- Define and communicate whether lessee workers are site workers or members of the public: if lessees are considered members of the public, then determine the adequacy of the authorization basis for adjacent facilities that assume the public is at the site boundary and the potential co-located hazards for these private-sector workers; if lessees are considered co-located site workers, then provide appropriate training on radiation protection, site hazards, and emergency response.
- Incorporate applicable OSHA, DOE, or industry safety and health requirements and accountability into leases and CROET subleases.
- Define applicable requirements and mechanisms to protect lessee workers in areas such as radiation protection, industrial safety and hygiene, chemical safety, fire protection, criticality safety, and emergency planning.
- Consider requiring lessees to report significant events, safety violations, radiological contamination, and onsite accidents to assist DOE

in monitoring safety performance, to share lessons learned, and to assist appropriately in limiting DOE liability in injuries related to DOE properties and mechanical equipment.

- Expedite the current OR initiative to define DOE roles, responsibilities, authorities, and line management oversight of lessee ES&H performance.

Issue: The leasing of shared spaces within buildings that have not been fully radiologically decontaminated and contain hazardous chemicals and materials creates potential hazards to private-sector workers, increases DOE liabilities, and has the potential to undermine community acceptance and support of reindustrialization.

Opportunities for Improvement

- For non-radiological, non-DOE work, consider leasing only entire buildings that have been decontaminated, from which hazardous materials and chemicals have been removed, and for which independent surveys have been conducted to ensure suitability for occupancy by private-sector workers.
- Generate a radiological protection program (or modify the existing ETPP radiological protection program) in accordance with 10 CFR 835 for lessees currently working in Building K-1401 and obtain Headquarters approval.
- Consider temporarily removing lessee workers from Building K-1401 or establishing appropriate engineering and administrative controls to facilitate expedited decontamination and cleanup of the basement. As a temporary measure, keep the first floor door to the northwest section of the building closed, locked, and posted.
- Provide monitoring and control over lessees' incoming materials, including hazardous chemicals, and outgoing manufactured products, including potential radiological contamination.

- Provide for adequate monitoring of lessee worker space, particularly in shared spaces, including safety performance, radiological contamination, and air samples in buildings with removable radiological or chemical contamination.
- Ensure that the authorization basis for buildings containing lessee workers, including shared spaces, adequately considers the protection of private-sector workers within these buildings.
- Revisit the risks, liabilities, and appropriateness of leasing additional space within contaminated and potentially hazardous buildings prior to cleanup.

3. The management infrastructure essential to the effective management of issues arising from events, accidents, and near misses needs to be strengthened to assure continuous improvement in safety management and sharing and implementation of lessons learned.

Issue: The management systems and infrastructures have not been effective in achieving continuous input to safety management and the sharing and implementation of lessons learned.

Opportunities for Improvement

- Strengthen DOE and LMES management followup and assessment of the understanding, acceptance, and implementation of ES&H policies, requirements, corrective actions, and lessons learned.
- Establish a DOE and LMES infrastructure to assure that events, accidents, near misses, and lessons learned that are reported to management are appropriately entered into lessons learned systems and distributed to all LMES sites on a timely basis.

- Assure that the feedback loop within integrated safety management is effective in achieving continuous improvement to management systems and programs, including information obtained through performance metrics, event investigations, external inspections, and self-assessments.
- Assure that potential safety management system weaknesses identified as contributing to accidents, events, and near misses are adequately analyzed, tracked, and acted upon.

Issue: Three serious accidents in the last five years, including two fatalities, indicate weakness in work planning and control and the distribution and implementation of lessons learned.

Opportunities for Improvement

- Ensure that issues and corrective actions identified by line management walkthroughs or Facility Representative assessments are captured by the issues tracking system and tracked to effective closure.
- Develop and implement a policy that clearly limits the use of skill-of-the-craft to identified routine, repetitive, and non-hazardous activities.
- Implement the event critique process as defined in DOE Order 5480.19, Conduct of Operations, at ETTP, including obtaining employee written statements and conducting a critique meeting as soon as possible after an event.
- Ensure that permanent or temporary supervisors have completed appropriate supervisory and ES&H training and are responsible for supervising activities only within their field of expertise.
- Continue to expedite the implementation of the corrective action plan for the 1997 fatality, including hazards analysis, work planning and control, and pre-job briefings.